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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/614,631	07/12/2000	John Dennis Hilgren	163.1382US01	2124

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EXAMINER	
PAK, JOHN D	

ART UNIT	PAPER NUMBER
1616	

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/614,631	HILGREN ET AL.	
	Examiner	Art Unit	
	JOHN PAK	1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 February 2005 and 04 August 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,6-9,31 and 35-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-3,31,35-38 and 43-46* is/are allowed.

6)☒ Claim(s) *6-9 and 39-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/10/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claims 1-3, 6-9, 31 and 35-46 are pending in this application.

Applicant's response to the Requirement for Information under 37 CFR 1.105, which was filed by applicant on 2/3/2005, have been reviewed. Applicant's response is deemed to be sufficient.

Applicant is advised of the following regarding the restriction requirement of record and current rejoinder practice. The restriction requirement set forth in Paper No. 6 (mailed 10/1/2001) restricted, inter alia, between a composition and method of use thereof. See for example the restriction between Group I (then-pending claims 1-9) and Group III (then-pending claims 12-22). Applicant elected to prosecute the composition invention of Group I in the reply of 2/20/202.

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. **Process claims that depend from or otherwise include all the limitations of the patentable product** will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See "Guidance on Treatment of Product and Process Claims in light of In re Ochiai, In re

Brouwer and 35 U.S.C. § 103(b)," 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

It is noted that there are several U.S. Patents[1] which claim method of using a peroxycarboxylic acid composition that may potentially raise an obviousness type double patenting rejection if corresponding method claims were being examined. The method claims are not currently being examined, but if a rejoinder were to become necessary, such patents that are directed to method claims may then be applied in obviousness type double patenting rejections. Presently, due to the restriction requirement, the Examiner believes that he cannot issue an obviousness type double patenting rejection of the instant composition claims over patented method of use claims.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

[1] For example, U.S. Patent Nos. 6,165,483, 6,238,685, 6,326,032, and 6,514,556.

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 6, 8 and 39-42 are rejected under 35 U.S.C. 102(a) and (e) as being anticipated by Hei et al. (US 6,024,986).

Hei et al. disclose a specific example composition that contains the following ingredients:

59 wt% acetic acid;

15 wt% octanoic acid;

25 wt% H_2O_2 (35% strength, so equivalent to 8.75 wt% H_2O_2);

1 wt% 1-hydroxyethylidene-1,1-diphosphonic acid.

See column 8, lines 34-37.

Applicant's claim 6 is directed to an "equilibrium mixture resulting from" a composition that reads on Hei's composition. Since the precursor composition is taught by Hei et al., the equilibrium mixture would necessarily be obtained upon obtaining the precursor mixture. The claim feature of "at least about 1 part by weight of peroxyoctanoic acid for each about 5 parts (or 4 parts) of peroxyacetic acid" is noted, but Hei's precursor mixture contains about 3.9 to 1 weight ratio of acetic acid to octanoic acid. Since the hydrogen peroxide would convert the precursor acid to peracid, the ratio

of the precursor acids and ratio of peroxy acids should be about the same. That means that Hei et al. do in fact necessarily disclose aforementioned claim 6 feature.

As for claim 8, it is the Examiner's position that the mixture taught by Hei et al. would immediately provide such a composition because the initial mixture would produce the peracetic acid and peroxyoctanoic acid at about the same ratios.

With respect to the activity against specific microorganisms set forth in applicant's claims 39 and 41, it is the Examiner's position that since the same exact composition is taught by Hei et al., the activity now claimed by applicant would be a necessary property possessed by the prior art composition taught by Hei et al.

The claims are thereby anticipated.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hei et al. (US 6,024,986).

Hei et al. disclose a specific example composition that contains the following ingredients:

59 wt% acetic acid;

15 wt% octanoic acid;

25 wt% H_2O_2 (35% strength, so equivalent to 8.75 wt% H_2O_2);

1 wt% 1-hydroxyethylidene-1,1-diphosphonic acid.

See column 8, lines 34-37. More broadly, the acetic acid can be present from 0.1-75 wt%, the octanoic acid can be present from 0-75 wt%, the hydrogen peroxide can be present from 0-70 wt%, and the chelating agent can be present from 0-15 wt% (see the first table on column 8, "Useful" ingredient ranges).

Given the specific example disclosed by Hei et al., taken with the broader ingredient range taught, one of ordinary skill in the art would have been motivated to at least slightly modify the example range to arrive at the ingredient amounts set forth in instant claims 7 and 9. Adjustment of the ingredient amounts would have been necessary from time to time to account for availability of stock ingredients and their concentrations. From the broad disclosure of Hei's ingredient range, one having ordinary skill in the art would have been motivated to optimize the concentration amounts to that of instant claims 7 and 9 with the expectation that advantageous antimicrobial composition would still be obtained.

Further, as already discussed in the 102-based ground of rejection, since the precursor composition is suggested by Hei et al., the equilibrium mixture would necessarily be obtained upon obtaining the precursor mixture. The claim feature of "at

least about 1 part by weight of peroxyoctanoic acid for each about 5 parts of peroxyacetic acid" is noted, but Hei's precursor mixture example shows about 3.9 to 1 weight ratio of acetic acid to octanoic acid. Since the hydrogen peroxide would convert the precursor acid to peracid, the ratio of the precursor acids and ratio of peroxy acids should be about the same. That means that Hei et al. fairly suggest the aforementioned claim feature. As for claim 9, it is the Examiner's position that the mixture taught by Hei et al. would immediately provide such a composition because the initial mixture would produce the peracetic acid and peroxyoctanoic acid at the same ratios.

The following is noted for the record regarding the compositions taught by Federal Register 61(108):28051-28053 (4 June 1996). The compositions disclosed therein do not disclose the same mixture of ingredients as claimed herein by applicant. While the ingredients are the same, the difference in the ingredient concentrations cannot be changed without affecting other ingredients, because the acids, hydrogen peroxide, and peracids all react with one another other in reversible reactions depending on starting concentrations and biological demand. The "at least about 1 part by weight of peroxyoctanoic acid for each about 5 parts of peroxyacetic acid" feature is also not disclosed or suggested. Therefore, it cannot be determined that the compositions disclosed in the Federal Register, which was the subject of the Requirement for Information, is suggestive of the claimed invention.

Claims 1-3, 31, 35-38 and 43-46 are allowed. Because all claims cannot be allowed at this time, a search update will have to be conducted at the time of the next Office action. The allowance is therefore subject to a search update.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to JOHN PAK whose telephone number is **(571)272-0620.** The Examiner can normally be reached on Monday to Friday from 8 AM to 4:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's SPE, Gary Kunz, can be reached on **(571)272-0887**.

The fax phone number for the organization where this application or proceeding is assigned is **(571)273-8300**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JOHN PAK
PRIMARY EXAMINER
GROUP 1600